

# Future of breast cancer research

**T**HE CURRENT APPROACH to breast cancer research in Marin County and elsewhere has yet to uncover the basis for this disease.

Marin County can continue to approach breast cancer research as it has in the past. But every year that we fail to find preventable causes for the high incidence of breast cancer, an average of 243 Marin County women will be diagnosed with breast cancer and an average of 43 will die.

To prevent women from developing breast cancer in the first place, we need to think outside the box. We need to recognize the limitations of the current hormonal theory of breast cancer and develop new theories that incorporate the broader spectrum of potential environmental risk factors. We need new research directions and new ways of assessing environmental exposures.

We agree with the other members of the Scientific Advisory Board that now is clearly the time for a new, revolutionary approach to breast cancer research in Marin. Research cannot continue to focus on gathering and analyzing the same things: 1) the demographics of women living in Marin; 2) their reproductive risk factors; 3) use of hormone replacement therapy; 4) alcohol consumption and 5) levels of physical activity. There are presently many local and national studies on the above topics demonstrating an association with increased breast cancer risk.

Most of the known risk factors described are considered contributory causes, i.e., neither necessary nor sufficient, but present as one of many causes in some but not all cases of disease. The real problem is that the currently well-accepted risk factors for breast cancer

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are common and do not adequately distinguish who will develop breast cancer and who will not. The effects of these risk factors, even in combination, are weak.

Biomonitoring, which is part of the Marin County Department of Health's breast cancer research proposal, is one of the new technologies commonly being used in environmental and health research studies, including breast cancer research. It is an assessment of the internal dose (what gets in the body) of environmental toxins or contaminants by measuring the toxin (or a breakdown product of the toxin) in human blood, urine, milk, saliva, fat and other tissue.

Biomonitoring, as an emerging science, has the potential to make a significant contribution to research on the role environmental factors play in the development of disease, including breast cancer.

The uncertainties associated with biomonitoring point to the need for early and ongoing dialogue among community members, breast cancer advocates, laboratory technologists, researchers, medical ethicists, public

health professionals, and health care providers in Marin County.

Our community should be fully informed about the many challenges and benefits associated with its use in environmental research, including the ethical issues associated with individual and population-level testing.

Most of the great leaps in medicine have come from creative thinkers who are willing to buck the status quo and try something new.

Marin Breast Cancer Watch is dedicated to following this path. We believe that the most effective breast cancer research requires that the community play an active, participatory role in shaping and conducting breast cancer research.

Marin Breast Cancer Watch suggests that a series of open community forums initiated by the Marin County Health Department be held throughout the development and implementation of the Marin County breast cancer research program.

In October of last year, Marin Breast Cancer Watch sponsored a community forum entitled "Critical Issues in Biomonitoring."

The day-long conference was co-sponsored by the Marin County Department of Health and Human Services, the Bay Area Breast Cancer and Environment Research Center and the California Environmental Health Tracking Program.

A written summary of the proceedings and/or a DVD of the presentations is available to interested community members, health professionals, public policy leaders and researchers.

For copies, call Marin Breast Cancer Watch (507-1949).